MTS-3206US

Appln. No.: 09/656,316

Amendment Dated: October 8, 2003 Reply to Office Action of: July 8, 2003

<u>Amendments to the Claims:</u> This listing of claims will replace all prior versions, and listings, of claims in the application

## **Listing of Claims:**

1. (Currently Amended) A data input apparatus comprising:

image acquiring <u>unit means for acquiring</u> an image of data <u>by directly inputting the image</u> displayed on a data display section of a measuring instrument;

<u>a</u> number <u>reading reader means for reading numbers in said acquired image; and <u>a display means for displaying the read numbers.</u></u>

2. (Currently Amended) The data input apparatus according to claim 1,

wherein said image acquiring means unit also acquires an image of a portion other than the data display section of said measuring instrument at the same time and

<u>an</u> image recognizing <u>means readsunit reading</u> information other than said numbers about said measuring instrument from the acquired image.

- 3. (Currently Amended) The data input apparatus according to claim 2, wherein the information on the measuring instrument read by said image recognizing means unit is used when said number reading means reader reads numbers.
- 4. (Currently Amended) The data input apparatus according to claim 1, wherein said image acquiring means unit comprising:

an imaging means for unit picking up an image; and

an image inputting means for unit cutting a still image from motion data captured by the imaging means unit.



Appln. No.: 09/656,316

Amendment Dated: October 8, 2003 Reply to Office Action of: July 8, 2003

5. (Currently Amended) The data input apparatus according to claim 1 or claim 2, further comprising:

MTS-3206US

<u>an</u> image extracting means for<u>unit</u> extracting an image in a specific area in the image acquired by said image acquiring means<u>unit</u>,

wherein said number <u>reading means</u> reader or said image recognizing <u>means unit</u> reads numbers or recognizes images for the image in the specific area extracted by said image extracting <u>meansunit</u>.

- 6. (Currently Amended) The data input apparatus according to claim 1, wherein said number reading means reader reads numbers displayed in analog form.
- 7. (Currently Amended) The data input apparatus according to claim 2, wherein the information about the measuring instrument read by said image recognizing means unit is units of measured values displayed, manufacturer's name of the measuring instrument, shape of the measuring instrument, color of the measuring instrument or barcode corresponding to the type of the measuring instrument.
- (Currently Amended) The data input apparatus according to claim 2 or claim 7, wherein said image recognizing means unit holds information on various measuring instruments as database and performs image recognition using also the database.
- 9. (Previously Presented) The data input apparatus according to any one of claims 1 to 4, 6 to 7, wherein said measuring instrument is a measuring instrument to detect various physiological conditions of human body and used as an electronic health monitor apparatus.
- 10. (Currently Amended) The data input apparatus according to claim 1 or claim 2, wherein said number reading means reader and/or said image recognizing means unit are provided on another apparatus connected through a communication channel.
  - 11. (Original) A data input system comprising:

the data input apparatus according to claim 4;

Page 3 of 14

0

UR

Amendment Dated: October 8, 2003 Reply to Office Action of: July 8, 2003

a TV telephone apparatus to communicate images with a third party at a remote place; and

a switching apparatus for switching the output destination of said imaging apparatus,

wherein by the user switching the output destination of said imaging apparatus through said switching apparatus according to the purpose of use,

said imaging apparatus can be used as an input apparatus common to said data collection apparatus and said TV telephone apparatus.

12. (Original) A data input system comprising:

the data input apparatus according to claim 4, which is a measuring instrument to detect various physiological conditions of human body;

an affected area image data collection apparatus for collecting image data of an affected area; and

a switching apparatus for switching the output destination of said imaging apparatus,

wherein by switching the output destination of said imaging apparatus through said switching apparatus according to the user's purpose of use, said imaging apparatus is used as an input apparatus common to said data input apparatus and said affected area image data collection apparatus.

13. (Original) A data input system comprising:

the data input apparatus according to claim 4, which is a measuring instrument to detect various physiological conditions of human body;

a TV telephone apparatus to communicate images with a third party at a remote place;

Amendment Dated: October 8, 2003 Reply to Office Action of: July 8, 2003

an affected area image data collection apparatus for collecting image data of an affected area; and

a switching apparatus for switching the output destination of said imaging apparatus,

wherein by switching the output destination of said imaging apparatus through said switching apparatus according to the user's purpose of use, said imaging apparatus is used as an input apparatus common to said data input apparatus, said TV telephone apparatus and said affected area image data collection apparatus.

14. (Currently Amended) A display data analysis apparatus that analyzes measured data measured and displayed by a predetermined measuring apparatus and outputs the analysis result to a predetermined processing apparatus, comprising:

imaging means for picking up an image; an image acquiring unit acquiring an image of data by directly inputting the image displayed on a data display section of a measuring instrument;

an analyzing means for unit analyzing the measured data in the image picked up by said imaging image acquiring means unit using analysis auxiliary information to analyze the measured data displayed by said measuring apparatus in the case where said measured data is detected by said detecting meansunit; and

<u>an</u> outputting <u>means for unit</u> outputting the analysis result analyzed by said analyzing <u>means</u>unit.

15. (Original) The display data analysis apparatus according to claim 14, wherein said detection auxiliary information and/or said analysis auxiliary information includes indices attached to said measuring apparatus and database concerning the indices.

Amendment Dated: October 8, 2003 Reply to Office Action of: July 8, 2003

16. (Original) The display data analysis apparatus according to claim 15, wherein said indices are attached to the outer circumference of the display section of the measured data of said measuring apparatus.

- 17. (Original) The display data analysis apparatus according to claim 15, wherein said indices are of L-type or rotated L-type.
- 18. (Original) The display data analysis apparatus according to claim 15, wherein said indices have a plurality of colors or a plurality of concentrations in the case of monochrome.
- 19. (Original) The display data analysis apparatus according to claim 14, wherein said detection auxiliary information includes color/reflectivity information on colors and/or reflectivity of the display section of the measured data of said measuring apparatus and database concerning the colors/reflectivity information.
- 20. (Original) The display data analysis apparatus according to claim 14, wherein said detection auxiliary information includes shape/color arrangement information on the shape and/or color arrangement situation of said measuring apparatus and database concerning the shape/color arrangement information.
- 21. (Currently Amended) The display data analysis apparatus according to claim 14, wherein <u>a</u> storage <u>means unit</u> that stores said analysis auxiliary information is provided.
- 22. (Original) The display data analysis apparatus according to claim 14, wherein said measuring apparatus is a vital sensor that measures living body information, said measured data is display data of the vital sensor and said processing apparatus is a vital sign box.
- 23. (Previously Presented) A medium that stores a program and/or data to execute all or some of the functions of all or some of the means of the present invention according to any one of claims 1 to 4, 6 to 7, 11 to 22 and can be processed by a computer.

Appln. No.: 09/656,316

Amendment Dated: October 8, 2003 Reply to Office Action of: July 8, 2003

24. (Previously Presented) A collection of information that is a program and/or data to make a computer execute all or some of functions of all or some of means of the present invention according to one of claims 1 to 4, 6 to 7, 11 to 22.

MTS-3206US

- 25. (Currently Amended) In a monitoring system including a plurality of differing measuring devices, each measuring a parameter of an object and displaying a parameter value on a display, a method of recording the parameter value from each measuring device comprising the steps of:
  - (a) identifying each respective measuring device;
- (b) scanning capturing a display of the measuring device identified in step (a) as an image to extract a parameter value displayed on the display; and
  - (c) inputting the parameter value extracted in step (b) to a data collection terminal.
- 26. (Previously Presented) The monitoring system of claim 25 wherein step (a) includes forming a marker on the display and identifying the respective measuring device by scanning the marker.
- 27. (Currently Amended) In a health monitoring system including a plurality of differing measuring devices, each measuring a health parameter of a patient and displaying a health parameter value on a display, a method of recording the health parameter value from each measuring device comprising the steps of:
  - (a) identifying each respective measuring device;
- (b) scanningcapturing a display of the measuring device identified in step (a) as an image to extract a health parameter value displayed on the display; and
- (c) inputting the health parameter value extracted in step (b) to a data collection terminal.

Λ/

College College

Amendment Dated: October 8, 2003 Reply to Office Action of: July 8, 2003

28. (Previously Presented) The monitoring system of claim 27 wherein step (a) includes forming a marker on the display and identifying the respective measuring device by scanning the marker.

- 29. (New) The method of claim 25 wherein step (a) includes forming at least two markers on the display, and scanning the markers to (i) identify the respective measuring device and (ii) identify the parameter value between the two markers.
- 30. (New) The method of claim 27 wherein step (a) includes forming at least two markers on the display, and scanning the markers to (i) identify the respective measuring device and (ii) identify the parameter value between the two markers.
  - 31. (New) A data input apparatus comprising:

an image acquiring unit acquiring an image of data displayed on a data display section of a measuring instrument;

a number reader reading numbers in said acquired image; and

a display displaying the read numbers,

wherein the data display section of the measuring instrument includes at least two markers and

the number reader is configured to scan the image of the markers to (a) identify the measuring instrument and (b) identify the reading numbers disposed between the two markers.

32. (New) A display data analysis apparatus that analyzes measured data measured and displayed by a predetermined measuring apparatus and outputs the analysis result to a predetermined processing apparatus, comprising:

an imaging unit picking up an image;

MTS-3206US

Appln. No.: 09/656,316

Amendment Dated: October 8, 2003 Reply to Office Action of: July 8, 2003

a detecting unit detecting the measured data displayed by said measuring apparatus in the image picked up by said imaging unit using detection auxiliary information to detect the measured data displayed by said measuring apparatus;

an analyzing unit analyzing the measured data in the image picked up by said imaging unit using analysis auxiliary information to analyze the measured data displayed by said measuring apparatus in the case where said measured data is detected by said detecting unit; and

an outputting unit outputting the analysis result analyzed by said analyzing unit,

wherein the measuring apparatus includes at least two markers, and

the detecting unit is configured to scan the image of the markers to (a) identify the measuring apparatus and (b) identify the measured data displayed between the two markers.

33. (New) The data input apparatus of claim 1, wherein the image acquiring unit is configured to directly acquire the image on the data display section free of any other communication or electrical interface.

Page 9 of 14